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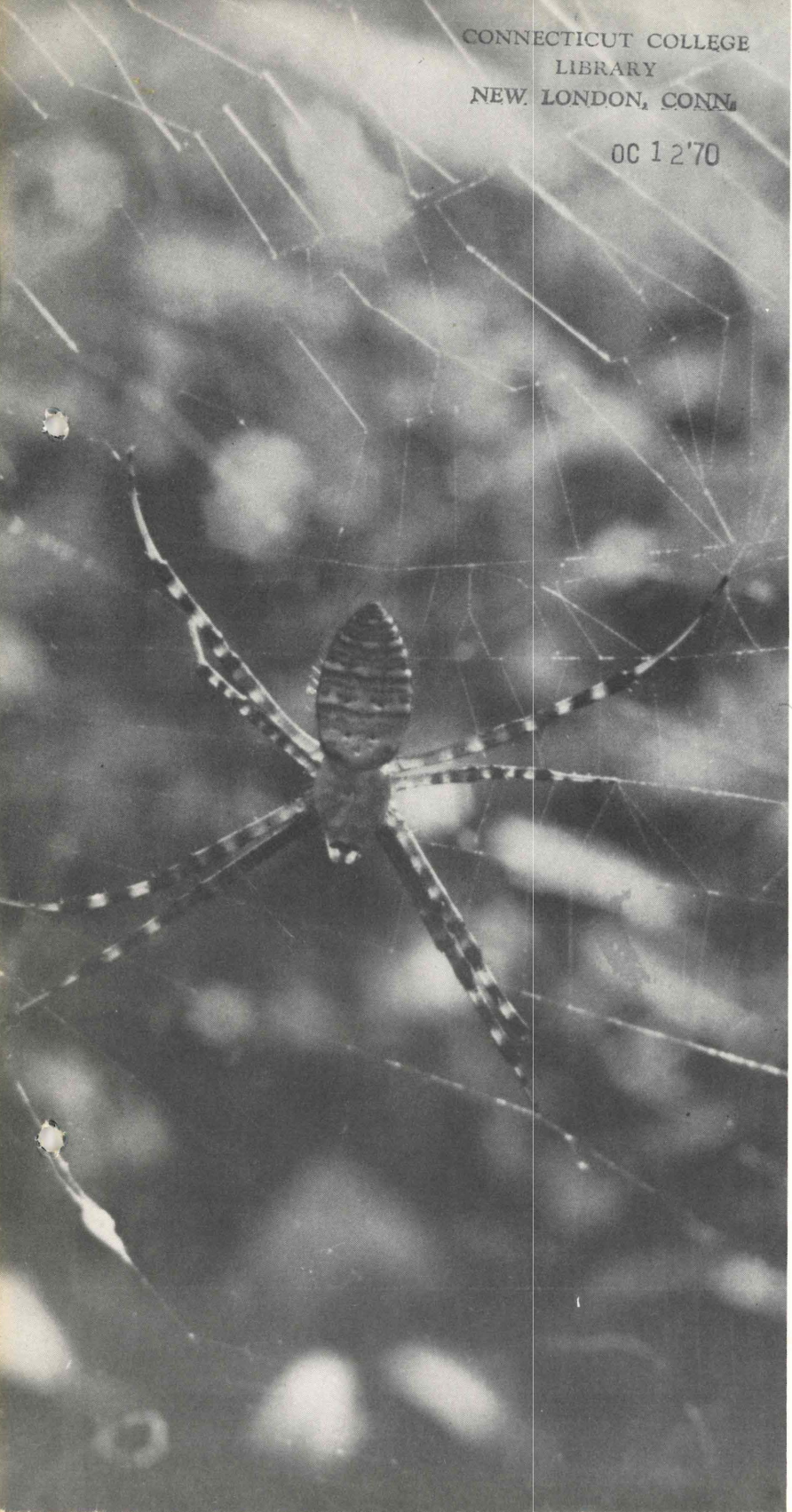

# Thames Science Center

STACKS

OCT.
1970

# NATURALIST NOTEBOOK

OCTOBER 1970 VOLUME VI NO. 8

CONTENTS

Front Cover:
"Garden Spider"
Photo by R. Dewire

CHILDREN'S SECTION

Nature Calendar ..... 1
Footnotes To Nature ..... 4
Nature Photography ..... 5

ADULT SECTION

Articles of Adult Interest ..... 8
From Executive Director's Desk 10
Pollution ..... 12
Field Notes ..... 14

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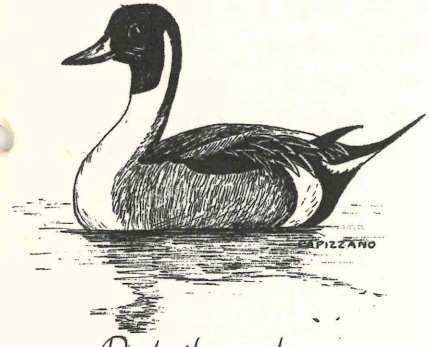
# OCTOBER The Month Of Migrating Waterfowl

Scoters

October is the month of migrating waterfowl. While some of our wintering ducks such as goldeneyes and canvasbacks do not arrive until November, the majority of the ducks do come through now. Depending on where you go, you will find a number of different kinds.

A marsh area of cattails dotted with small ponds will have most of the species of ducks that are called the "puddle" or "tip-up" ducks. They do not dive for food but as the latter name indicates they tip up and extend their bills and necks under the water to grab the various plant materials that comprise their diet.

An October day in this kind of area would produce the mallards and black ducks we have seen all summer, but there would be far greater numbers of them. Gadwall, a duck with large patches of white in the wings when flying will also be present but in smaller numbers. The pintail, probably the most streamlined of the ducks can often be found in sizeable flocks at this time. The long tail of the male gives it its appropriate name. The green-winged teal is the smallest of these ducks. The male has a chestnut and green head and both male and female have the irridescent green speculum on the wing.



Pintail, male

If you move out to a river or bay, the duck species will change. Blacks and mallards may be present and a new tip-up duck will also be found. This is the American widgeon or baldpate, so called because the male has a white patch on top of his head. The other ducks in this habitat will be divers. Since many are primarily fish eaters they are adapted to dive under the water to catch them. One of the common ones to look for is the greater scaup which has a dark head, light back and dark tail making them easy to spot. They are rafting ducks with several hundred often swimming close together. The small bufflehead is a favorite of many people. The male has a bold black and white pattern with bright red feet. The female is duller with a white spot on the side of the head. They swim around in small flocks diving and chasing each other and seeming to have great fun even in the worst weather. Male hooded mergansers look very much like male bufflehead, but the side of the merganser is a rich chestnut color.

Bufflehead

The open sound or ocean is strictly the home of the diving ducks. In October long drawn out strings of scoters (see pg. 1) will be flying low over the water on migration. Basically black in color, the three species are the white-winged scoter with large white patches in the wings, the surf scoter with a white patch on the back of the head, and the common scoter which is completely black. The red-breasted merganser will also be found here, looking a little like a sea-going mallard with its green head, but the white on its body, the long thin bill, and diving habits will identify it.

Visit these areas this fall and see if you can find all the ducks mentioned in this article.

# *THE OCTOBER CALENDAR*

October is the month of crisp days and colorful leaves.

October 4... Coot arrive for the winter in rivers and coves.

October 5... Ducks such as Surf and White-winged Scoter and Red-breasted Mergansers are arriving from the North.

October 8... White-throated Sparrows begin to come to feeding stations.

October 14... The Double-crested Cormorant migration is at its peak.

October 14... The Full Hunter's Moon

October 18... Pintails and Green-winged Teal are found in our marshes - Bufflehead in our coves.

October 19... Ruddy ducks arrive on migration.

October 19... Fox Sparrows arrive at feeding stations.

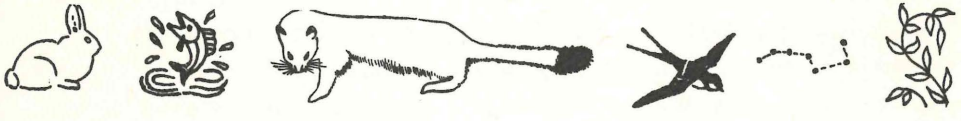
October 20... The first Evening Grosbeaks arrived on this date last year. What will happen this year?

October 24... Daylight Savings Ends. Be sure to set your clocks back one full hour before retiring.

October 25... Pine Siskins pass over head in small migrating flocks.

October 25... Snow Buntings are found along our sandy beaches.

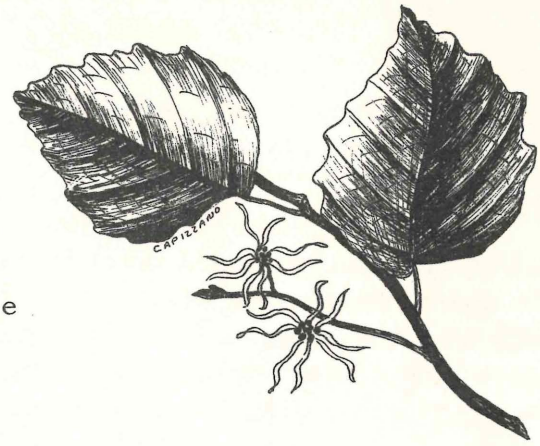
October 31... Hermit Thrushes are very common in our woodlands as they head South.



# FOOTNOTES TO NATURE

*by MARY JEAN DEWIRE*

Witch hazel is a shrub or small tree with a short trunk and a loose, spreading head of small zigzag branches. The oval leaves vary from 4 to 6 inches in length and are unevenly based on the branches. They are also strongly veined and coarsely toothed along the edges.



The flowers of witch hazel are small and clustered with long narrow yellow petals that are faintly fragrant. They blossom in late autumn and persist all winter. This accounts for the name of "winter bloom" that is sometimes given to witch hazel.

The other name for witch hazel is "snapping alder"; this name indicates the strange behavior of the plant. The nut-like fruit of the witch hazel ripens in early autumn to a woody two-celled capsule the size of a large pea. In late autumn, after the leaves have dropped, these old fruit pods open explosively to shoot their two black seeds into the air for distances up to 20 feet! The reason for this shooting action is to increase the young plant's chances for survival. If the seeds just fell from the pods, they would land under the parent plant and be shaded out.

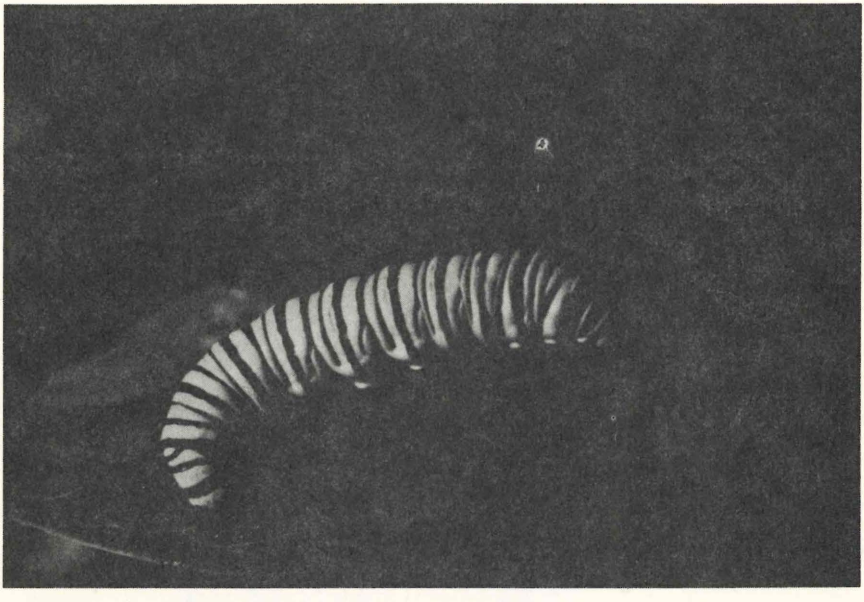
Witch hazel may be familiar to some of you for other reasons. An extract of the bark has long been used for medicinal purposes. Witch hazel branches are also frequently used as "divining rods" in attempts to find in some mysterious way the presence of underground water.

# *NATURE PHOTOGRAPHY*

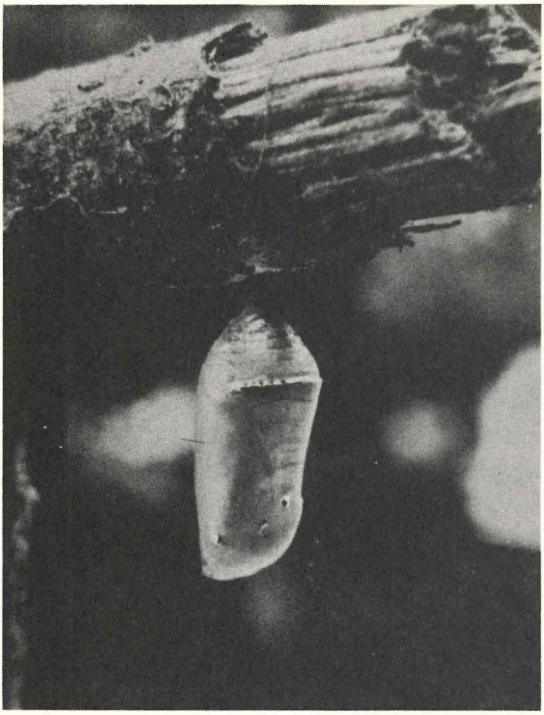
## METAMORPHOSIS OF THE MONARCH BUTTERFLY

*Photos and text by*
*Bob Dewire*

By this time of year, anyone going down along the coast will notice many monarch butterflies that are on their way South for the winter. The pictures in this article show the stages of metamorphosis from caterpillar to the adult. Pictures were taken with a Miranda FV single-lens reflex camera with a 46mm close up lens. This writer was able to raise and release four of these butterflies this summer.

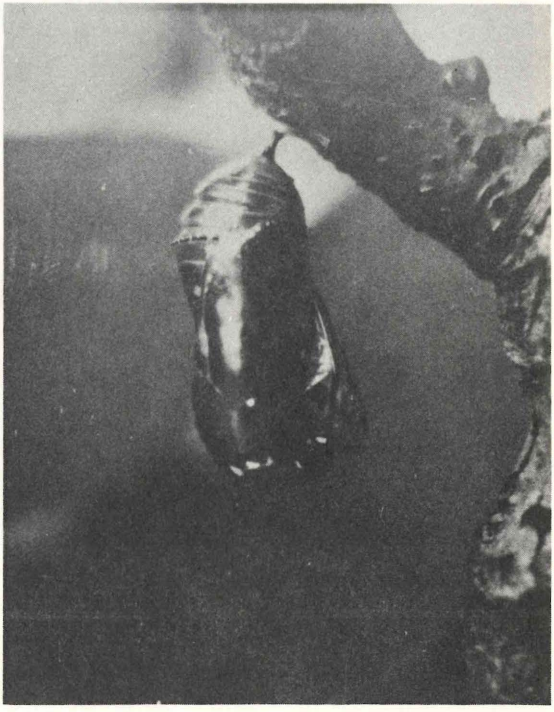


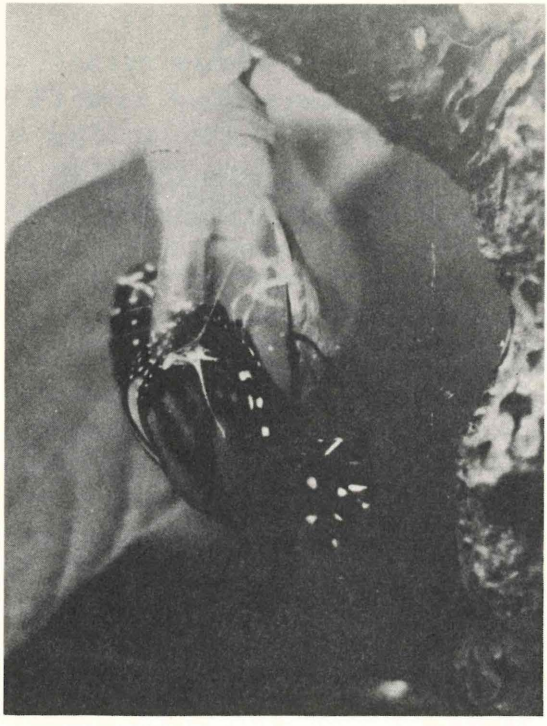
The monarch caterpillar is a very handsome creature with stripes of black, yellow, and white. He is found almost entirely feeding on the leaves of the milkweed. He will feed and grow for a few weeks and then hang himself from something and shed his skin under which is the chrysalis.



The chrysalis of the monarch is very beautiful. It is a bright green with what look like liquid drops of gold on it. The caterpillar will stay in this chrysalis for 10 days to two weeks.

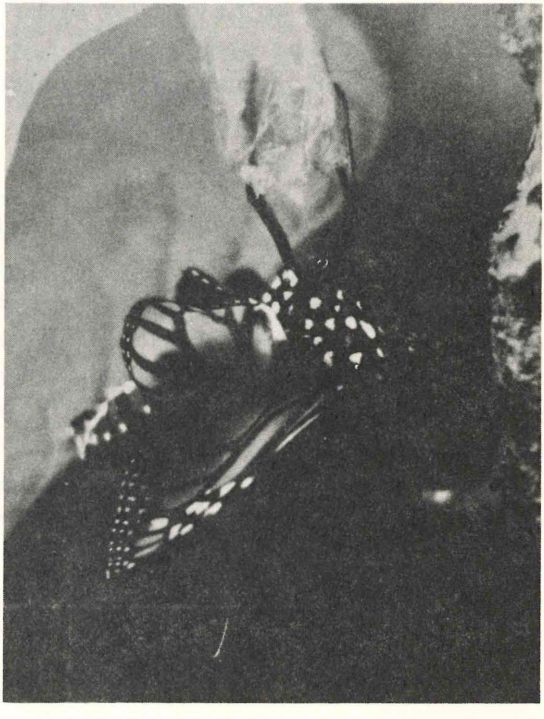
Just before the butterfly is ready to emerge, the chrysalis will become transparent. Within a few hours the bottom will split and the adult monarch will begin to push himself out.





The entire process of emerging from the chrysalis takes but 30 seconds. The monarch is making the final push here to be released.

The wings of the newly emerged butterly are shriveled and wet. Depending on the weather the monarch may hang from the old chrysalis for 3 to 8 hours while his wings fill with fluid and their surface dries out. Once dry, the butterfly takes off to join others of his kind already moving South.



# ARTICLES OF ADULT INTEREST

We welcome notice of Conservation activities or problems for inclusion in this section of the Naturalist's Notebook .... Please let us know of your local activity so that others may be aware of your efforts and lend their support where possible ....

MIKE WALKER DEPARTS: Mike Walker has submitted his resignation as Curator of the Center to the Center's Board of Directors. Mike has left to attend Glassboro State College in New Jersey where he is working for his Master's Degree in Environmental Education. The Center is sorry to have lost Mike who was not only an excellent Curator and teacher but had a great deal of enthusiasm and a magnetic personality. We wish him the best of luck in his new venture.

OUR NEW BUILDING: On August 19th, the Executive Committee of the Board of Directors of the Science Center held its first meeting in our New Interpretive Center. On August 22nd we held a work day to prepare the grounds of the new Center for topsoil and planting. Many of our members came to help and we were able to get the area ready. Moving in has begun, and we are operating out of the new building to a limited degree. Work on exhibits will begin soon. There is much work to be done...

FRIEND OF CENTER: Mr. William Willetts has become a Friend of the Science Center. We hope that there are others of you planning to become Friends also.

WILDLIFE FILM: The first Audubon Wildlife Film of the season will be presented on Oct. 25th at 3:00 P.M. in Palmer Auditorium. The subject will be England and its wildlife. Mr. C.P. Lyons is returning to us after giving his excellent program on Mexican wildlife in 1969. Season tickets for the Wildlife Films are on sale at the Center. Both these and single admission tickets will be available at the door.

TWO NEW STATE PUBLICATIONS: The Connecticut Geological and Natural History Survey and the Connecticut Board of Fisheries and Game have each published a booklet on some of the wildlife in Connecticut. The Survey publication is Bulletin 103 entitled "Connecticut's Venemous Snakes". It is all on the two species of poisonous snakes found in the state - the copperhead and the timber rattlesnake. The booklet can be purchased for $1.00 plus sales tax from the State Librarian, State Library, Hartford, Conn. 06115. The Fisheries and Game booklet is entitled "Places to Look for Birds". It describes 91 areas in the state that one may go to along with their locations and types of habitat. Single copies are free and can be obtained by writing the Conn. Board of Fisheries and Game, State Office Building, Hartford, Conn. 06115.

NEW LONDON COUNTY BIRD CLUB TRIPS: In October, the New London County Bird Club will sponsor the following walks to observe the fall migration. Members of the Center are welcome to join in on the trips. They will all begin at 7:00 A.M. at the location specified.

| DATE | LOCATION | MEETING PLACE |
|---|---|---|
| Oct. 10 | Harkness Park | Harkness Parking Lot |
| Oct. 17 | Napatree Point | Watch Hill Parking Lot |
| Oct. 24 | Jamaica Bay, N.Y. | New London Shopping Center |
| Oct. 31 | Plum Is., Mass. | Mystic, Howard Johnson's off Rt. I95 |

The last two trips are all day and a box lunch should be brought.

# FROM THE EXCUTIVE DIRECTOR'S DESK . . . .

*By ROBERT S. TREAT*

Life for the ordinary human being who likes to breathe clean air, go for a walk in the woods or fish in sparkling streams can be pretty discouraging these days. In the abstract we hear Dr. Barry Commoner, Director for the Center for the Biology of Natural Systems predict that due to the disruption of nature's chemical balances the United States is on a suicidal course. Alan Toffler's new book, "Future Shock," states technology has contributed to a polluted, over-populated world and has shaken man's traditional values leaving nothing to replace them. A quick glance at the papers reveals a snowballing list of ecological disasters and disappointments: Bald Head Island sold to the developers, Storm King Mountain to be used by Con Edison for power purposes, mercury poisoning in the lakes and streams, nerve gas dumped into the Atlantic by our own government, defoliant chemicals used in huge quantities in Vietnam are possible causes of birth defects in children according to a report of the World Health Organization. The list is long and grows longer with alarming rapidity. Closer to home, Connecticut's meadows give way to one endless chain of shopping centers, oils slicks hit Groton's beaches and the motorcycles invade the Connecticut Arboretum and Barn Island. If one takes a moment out of our busy, hectic American life to reflect on the significance of these few examples, they become mind-boggling and unbearable leading our ordinary citizen into a bad state of depression and into the nearest movie to escape the impact and responsibility.

Depression and escape are luxuries we can no longer afford! That is, if we want to live and if we want to save what is left of our natural heritage. Nor is it a very satisfying way to exist. How should the Thames Science Center and its members respond to this crucial challenge? There will always be field trips, walks in the Arboretum, bird banding and other ways of revealing nature and enjoying it. You may have noticed in the past few issues of the notebook, however, the Center has become increasingly active in one form or another of environmental concern. Two issues have dealt with ways to counter pollution and last spring, the Center joined with students of Connecticut College and local citizens to help form an environmental group known as "Survival." Unavoidably our role will encompass environmental awareness, concern and action. Our teaching will tend to emphasize man's dependence on nature, his need not to dominate the ecological system but to understand and live in harmony with it so that all of us may survive in our finite spaceship Earth. But what about you? Too often we tend to point at industry alone for polluting the skies and waterways, or government for nuclear pollution and attempting to pave the entire country, or jets for putting a ribbon of dioxide around the globe. Yet we live in a world of supply and demand, and these organizations attempt to meet the demand. Perhaps there is something profound in the popular statement, "I have met the enemy and he is me!" The Center invites you to join us in our expanded role as we make use of our numerous resources and our new building.

# An Introduction to Pollution

*By MARTHA CAPIZZANO*

## DO'S AND DON'TS OF DETERGENTS

A significant source of water pollution is caused by the individual who uses detergents for home laundry, cleans walls and floors, and cycles dishes in a dishwasher. The main pollutant is phosphate, an ingredient in virtually all detergents causing excessive algae growth which chokes waterways with decaying, foul-smelling masses of scum. The end result is a "dead" lake or river such as Lake Erie.

The aging process of lakes, called "eutrophication," is not new; it has been going on since the world began. A natural process during the Carboniferous Period millions of years ago, for instance, formed coal, natural gas, oil and peat moss: the end result of "dead" lakes centuries past.

The great concern is over the rapid speedup of of eutrophication... then it becomes pollution. Detergents fertilize algae causing it to proliferate then die, producing bacteria which feed on the algae. The bacteria, in turn, overburden the oxygen supply which also die and are replaced by other bacteria that can live with little or no oxygen. This unnatural process forces a dead lake.

### DO USE

Products that contain no phosphates are generally non-polluting. Instead of detergents, use soap (IVORY SNOW, IVORY SOAP FLAKES, LUX POWDER) plus washing soda or baking soda. The soda acts as a water softener and clothes will remain white... economically too. Washing soda cost about 10¢ per pound.

To keep clothes white, a process of "stripping" the material will easily convert your laundry from deter-

gents to the soap/soda wash. In hot water add 4-6 Tbl. of soda to wash clothes. This will remove the excess detergent and dirt that has accumulated and could promote yellowing. Thereafter, add 2-4 Tbl. of soda, depending on hardness of water, plus soap, to your laundry water.

Based on the quantity of detergent per washload recommended by the manufacturer, many detergents contain phosphates and should not be used. (Accurate figures for some laundry detergents including those below 25 grams per washload are unavailable but are listed below in order of phosphate concentration.)

## LAUNDRY DETERGENTS

| | | | | | |
|---|---|---|---|---|---|
| Dash | 1c. | 60 | Oxydol Plus | 1½c. | 34 |
| Salvo | 2tbl. | 59 | Fab | 1½c. | 34 |
| Bonus | 2c. | 55 | Cheer | 1¼c. | 33 |
| Sears Enzyme | 1½c. | 55 | Rinso | 1¼c. | 32 |
| Amway Trizyme | — | — | Cold Water All | ½c. | 31 |
| Fluffy All | 1½c. | 52 | Ajax | 1½c. | 31 |
| Vim | 4tbl. | 44 | Brion | — | 30 |
| Cold Water All | 1¼c. | 42 | Bold | 1¼c. | 29 |
| Drive | 1¼c. | 41 | Cold Power | 1¼c. | 29 |
| Tide XK | 1½c. | 40 | Silver Dust | 2c. | 28 |
| Duz | 1½c. | 39 | Dreft | 1½c. | 27 |
| Sears | ¼c. | 38 | Gain | 1¼c. | 27 |
| Concentrate All | 1c. | 38 | Surf | | |
| Biz | — | 37 | Wisk | | |
| Breeze | 2c. | 36 | Blue Magic | | |
| Punch | 1¼c. | 35 | Instant Fels | | |
| Amway S-A-8 | — | — | Trend | | |
| Axion | — | 34 | Diaper Pure | | |

**BLEACH** Snowy, Beads O'Bleach, Action, Miracle White

**LAUNDRY BOOSTER** Anything goes

**WATER SOFTENER** Amway Water Softening Compound, Calgon, Amway Smashing White

**DISHWATER POWDER** Cascade, All, Calgonite, Amway, Electrosol

**CLEANERS** Spic 'n Span, Ajax, Mr. Clean, etc., etc.

# FIELD NOTES

July 15 - August 31

With the approach of autumn, more activity as migration begins results in an increase in reports. The shorebird migration is well underway and the first land-birds are beginning to move South. Fields come alive with flowers and the insect population increases with them.

Old Saybrook and Old Lyme: A YELLOW-CROWNED NIGHT HERON was seen on a mudflat in Saybrook on July 17th. A report from Westbrook brought feelings of winter with sightings of 3 OLDSQUAWS 1 GOLDENEYE and 1 RED-BREASTED MERGANSER all from the same area. These are probably sick or injured birds that could not make the long flight to their northern nesting grounds. A WHIMBREL was seen at Griswold Point in Old Lyme on Aug. 11.

East Haddam and Niantic: CARDINAL FLOWER was in bloom at Devil's Hopyard on Aug. 12th. Two excellent nesting records came out of the Hopyard. The first was the finding of the nest of the ACADIAN FLYCATCHER on Aug. 4th. This is the 3rd year that this bird has nested in the park. Previously, there were no known nestings in New England since 1906. The second interesting record was of a WINTER WREN feeding 5 young out of the nest. This is the first known S. E. Conn. nesting record of this bird. A remarkably early SLATE-COLORED JUNCO was seen along Rt. 82 in East Haddam on July 28th. The PURPLE GALLINULE mentioned in last month's newsletter at Dodge Pond in Niantic stayed for two weeks from July 12th to 26th and then disappeared.

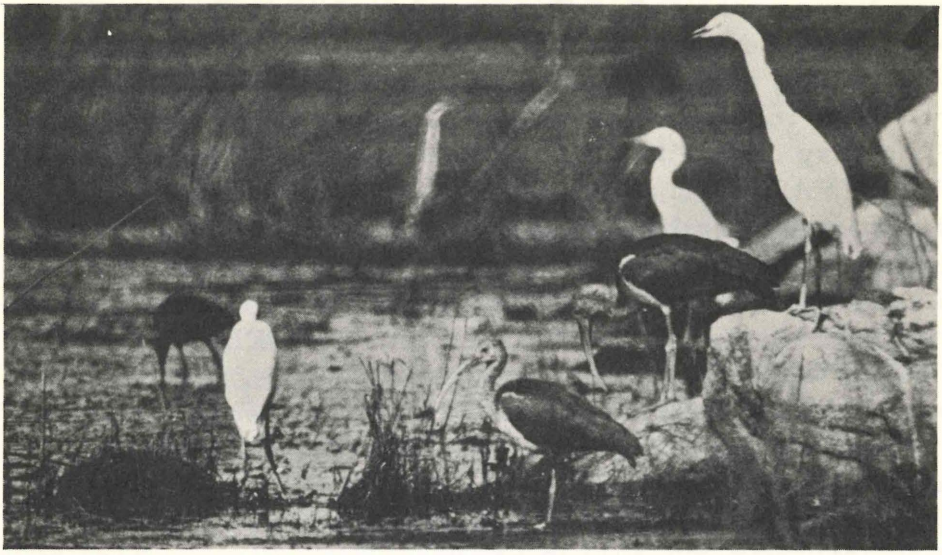
Waterford and New London: GOLDEN GARDEN SPIDERS had their webs out by Aug. 6th. A MYRTLE WARBLER behind the Science Center on Aug. 11th was very early. At Harkness Park a female BUFFLEHEAD remained until Aug. 3rd, and the first report of a MARSH HAWK was from there on Aug. 10th.

Gales Ferry, Mystic, and Stonington: PINESAP was found at the Peace Sanctuary on August 8th and ROSE MALLOW flowered at Barn Island on the 12th. A CICADA was calling at the Peace Sanctuary on July 26th. Northern warblers moving south were first noted at the Peace Sanctuary on August 22nd when a BLACK-THROATED BLUE WARBLER and a NASHVILLE WARBLER were seen. Migrating NIGHTHAWKS were seen in Gales Ferry on August 18th. The end of July saw a SOLITARY SANDPIPER and two WHIMBRELS on the 19th and 25th respectively and a COMMON LOON and PIED-BILLED GREBE on the 24th. An immature LITTLE BLUE HERON was there on the 29th. Barn Island really became unbelievable in late August however. Besides the almost unprecedented discovery of the WHITE IBIS (see page 16), the period from August 22 to the 24th yielded the following birds all from standing in one place at the same pond! 25 GREEN HERONS, 1 adult and 2 immature LITTLE BLUE HERONS, 15 COMMON EGRETS. 64 SNOWY EGRETS, 10 BLACK-CROWNED NIGHT HERONS, 1 GLOSSY IBIS, 6 GADWALL, 1 PINTAIL, 25 GREEN-WINGED TEALS, 20 BLUE-WINGED TEALS, 1 WOOD DUCK, 1 MARSH HAWK, 1 RAIL (KING or CLAPPER), 2 COMMON SNIPE, 20 GREATER YELLOWLEGS, 50 LESSER YELLOWLEGS, 6 PECTORAL SANDPIPERS, 13 STILT SANDPIPERS, 1 WILSON'S PHALAROPE, 25 NIGHTHAWKS, 1 CLIFF SWALLOW, 1 TENNESSEE WARBLER and 150 BOBOLINKS.

Rhode Island Shoreline: At Napatree Point there were KNOTS present on July 21st and an injured OLDSQUAW was there on Aug. 8th. STILT SANDPIPERS were at Quonochontaug on Aug. 9th. At Galillee there was an adult LITTLE BLUE HERON on July 29th and 150 WILSON'S PETRELS were just offshore at the Pt. Judith Lighthouse on Aug. 9th.

Contributors to this column were: Mr. & Mrs. Kenneth Bates, Grace Bissell, Lawrence Books, Martha Capizzano, Jim Clark, Nancy and Oliver Dension, Bob and Mary Jean Dewire, Kay Eastman, Richard English, Davis and Sally Finch, Sam Knox, Bruce and Steven Murphy, Noble Proctor, and Richard Waterman.

# *WHITE IBIS IN CONNECTICUT ! !*



The two young white ibis stand side by side with snowy egrets around them. The dark bird to the left is the glossy ibis. (Photo by Oliver Denison)

On the evening of August 22nd, Nancy and Oliver Denison were at Barn Island photographing wildlife when they came upon a number of egrets feeding in a marshy pond. Nancy look them over and discovered three ibis with them. One was the glossy ibis, but the other two were quite different. They had brown backs, white bellies and reddish-pink bills. Checking in a bird book, they found that the birds fit the description of the immature white ibis. Other birders were contacted and on Sunday morning a number of them braved the pouring rain to verify the Denisons identification. Since then people have come from all over Connecticut and Rhode Island to see them. They have remained up to press time.

The white ibis is an extremely rare bird in this part of the country. Its normal range is from southern North Carolina southward along the coast. In Connecticut, there has been only one other sighting of this bird in history and that was of an adult ibis seen at Milford Point in Milford on May 23, 1875!

# ACTIVITIES FOR OCTOBER

Saturday, October 10...10:00 A.M. A Junior members' workshop for grades 1, 2 and 3. "Collecting Fall Leaves." Limit of 15 children. Phone the Center to register your child.

Sunday, October 11...2:00 P.M. Peace Sanctuary. A walk through the Sanctuary to see the woodlands in the fall. Meet at the Sanctuary entrance on River Road.

Saturday, October 17...7:00 A.M. Napatree Point. A trip down the point with members of the New London County Bird Club to look at migrating shorebirds and waterfowl. Meet at the Watch Hill parking lot.

Sunday, October 25...3:00 P.M. Audubon Wildlife Film held at Palmer Auditorium, Connecticut College. Mr. C.P. Lyons will present his program entitled "This Earth, This Realm, This England." Both Single Admission and Season Tickets will be available at the door.

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# NATURALIST NOTEBOOK

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ROBERT C. DEWIRE — *Naturalist*

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The active support of children and adults in the Science Center, its programs, activities and efforts is earnestly solicited.

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ROBERT DEWIRE
*Editor*

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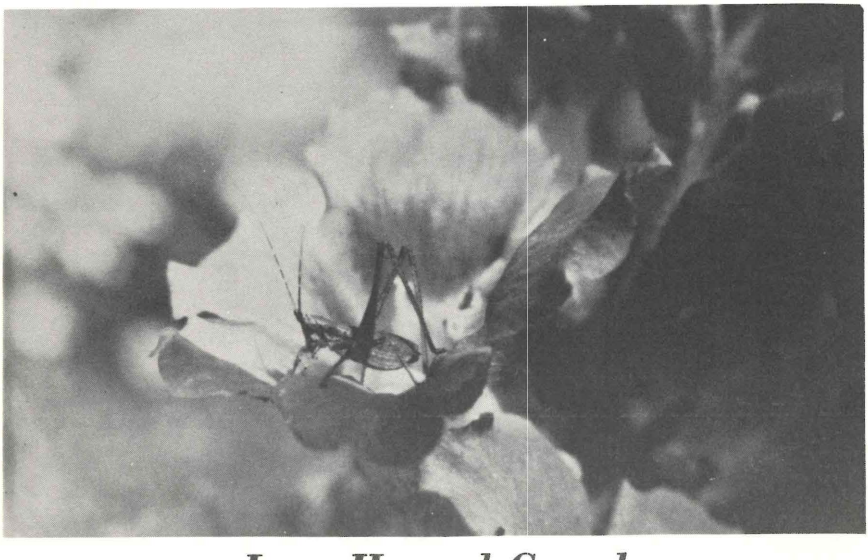

***Long-Horned Grasshopper***

Photo by R. Dewire